

Permit Fact Sheet

General Information

Permit Number:	WI-0001759-10-0
Permittee Name:	Johnsonville LLC
Address:	PO Box 906 Route 1
City/State/Zip:	Sheboygan Falls WI 53085
Discharge Location:	<p>Outfall 002: East Bank of the Sheboygan River at approximately 600 feet downstream of the CTH JM bridge in the Sheboygan River Watershed of the Sheboygan River Basin in Sheboygan County</p> <p>Outfall 003: West Bank of the Sheboygan River at approximately 200 feet downstream of the CTH JM bridge in the Sheboygan River Watershed of the Sheboygan River Basin in Sheboygan County</p> <p>Outfall 005: Department Approved Landspreading Sites or another permitted facility for further treatment and/or disposal</p> <p>Outfall 006-009: Hauled to another facility for disposal</p> <p>Outfall 010: On-site stormwater ponds or drainage ditch that flows to the Sheboygan River.</p>
Receiving Water:	Sheboygan River (Sheboygan River Basin) within the Northeast Lakeshore TMDL study area.
StreamFlow (Q _{7,10}):	<p>Q_{7,10}: 11.8 cfs (statistically derived lowest 7-day flow over any 10-year period to date)</p> <p>Q_{7,2}: 18.7 cfs (statistically derived lowest 7-day flow over any 10-year period to date)</p>
Stream Classification:	Warmwater sport fish community, Great Lakes Basin, and non-public water supply

Facility Description

Johnsonville LLC (hereafter Johnsonville) is headquartered in central Sheboygan County in the Township of Sheboygan Falls, Wisconsin. Johnsonville consists of three separate sausage processing facilities within the campus. These facilities include: Countryside (fresh, non-cooked sausage), Meadowside (smoked and cooked sausage), and Riverside (smoked and cooked sausage). Johnsonville started a new production line at the Meadowside facility in 2017 which increased the overall annual production to 345 million pounds of product. All wastewaters generated are treated at two separate industrial wastewater treatment plants owned by Johnsonville (WWTP 1 and WWTP 2; and formerly referenced as the Countryside and Meadowside plants) with a combined annual average design treatment capacity of 0.63 MGD. The WWTPs treat process wastewater (primarily cleanup water) from the three production/processing facilities and a pilot lab, ammonia system cooling tower and boiler blowdown from the production facilities, employee sanitary wastes, and sanitary wastes from the unincorporated community of Johnsonville. Effluent from the two WWTPs are combined prior to UV disinfection and discharged to the east bank of the Sheboygan River through a combined Outfall 002, 600' downstream from CTH JM. Non-contact cooling water (supplied through private wells and without additives) from the Riverside facility is discharged at average of 1,000 gallons per day through a separate Outfall 003 to the west bank of the Sheboygan River, about 200' downstream from CTH JM.

WWTP1 treats the process wastewater from the Riverside and Countryside production facilities, ammonia system cooling tower and boiler blowdown from the two production facilities, and the sanitary wastewater from the Johnsonville Sausage campus and the Village of Johnsonville. Wastewater from the Tech Center pilot lab can also be routed to WWTP1, but is

normally sent to WWTP2. WWTP1 has an annual average design flow rate of 261,000 gallons per day (0.26 MGD). The WWTP1 includes influent screening, influent flow monitoring, grease interceptor, primary activated clarification, flow equalization, an activated sludge system with anaerobic selectors, and final clarification. Waste activated sludge is discharged to the WWTP2 package plant sludge storage cell to hold prior to thickening.

The WWTP2 (formerly known as Meadowside WWTP) treats process wastewater from the Meadowside production facility and ammonia system cooling tower and boiler blowdown from the production facility. WWTP2 also normally treats wastewater from the Tech Center pilot lab. The process wastewater from the Riverside production facility can be diverted and treated at WWTP2 when necessary. The WWTP2 has an annual average design flow rate of 369,000 gallons per day (0.37 MGD). WWTP2 includes 2 grease interceptors (at the Meadowside production facility), influent flow monitoring, flow equalization, rotary screening, dissolved air flotation (DAF) with polymer (and coagulant as needed), chemical precipitation, pH neutralization, and an activated sludge system with clarification.

The influent at WWTP2 runs first through flow equalization that is conducted in 2 covered and mixed equalization tanks with pH adjustment when needed. The equalized water is pumped through a rotary screen, then sent to the DAF system where polymer is added to float and remove fats, oil, and grease. Screenings from the rotary screen are rendered by Sanimax. The floating sludge and settled sludge from the DAF are removed and sent to a 700,000 gallon sludge storage tank. The water then is sent through the chemical precipitation process, which consists of lime addition to adjust the pH to 11.5 – 12 in a chemical reaction tank. Polymer is added to improve flocculation and settling. The water and flocculated solids are sent into a chemical clarifier for settling. The sludge drawn off the bottom is sent directly to the sludge storage tank. The clarified water passes through a neutralization tank where the carbon dioxide is used to reduce the pH to 6.8 – 7.5 before the water is directed to the activated sludge process. The activated sludge system is a package plant with a plug-flow aeration basin in the outer ring and a clarifier in the center. The waste activated sludge is sent to a storage cell that acts as a storage tank prior to subsequent sludge thickening. The effluent is treated with a small amount of Department approved de-foaming agent prior to combining with WWTP1 effluent. The combined effluents then passes through UV disinfection and an effluent monitoring station prior to final discharge to the Sheboygan River (Outfall 002). Johnsonville treated an annual average of 0.47 MGD through Outfall 002. This is an increase of 0.11 MGD over the last permit term but, remains below the combined treatment capacity of the plants. Discharge monitoring data for Outfall 002 can be found in the “Discharge Monitoring Results” attachment of this fact sheet. The WWTPs have been in substantial compliance with limitations and requirements over the previous permit term.

The waste activated sludges from WWTP1 and WWTP2 that are stored in the day tank are sent through a gravity belt thickener for thickening. The sludges are then thickened to roughly 6% solids. The thickened sludge is then conveyed to the 700,000 gallon sludge storage tank. The filtrate from the gravity belt thickener is normally pumped to the equalization tank at WWTP1, but can also be routed to the equalization tank at WWTP2. The thickened sludge is hauled to a public owned treatment works, but the facility has the ability to land spread sludge. The majority of sludge is further treated and disposed by permitted haulers and facilities. The permit retains the ability for Johnsonville to directly land apply on Department-approved sites through Outfall 005. Wastewater treatment system sludge data for Outfall 005 can be found in the “Wastewater Treatment System Sludge Data Results” attachment of this fact sheet.

Process grease from in-plant grease interceptors associated with Meadowside and Riverside production facilities is hauled to another permitted facility. No grease is disposed in manure pits. This activity is tracked through Outfall 006. Johnsonville might occasionally need to haul influent from WWTP2 to another permitted facility, but has not had to do so for several years. This activity is tracked through Outfall 007. Johnsonville hauls water softener regeneration brine water associated with well water treatment to another treatment facility and this activity is tracked through Outfall 008. Lastly, grease from the grease interceptor at WWTP1 is hauled to a permitted facility which treats liquid waste before landspreading under its own permit. This grease interceptor receives sanitary waste and the grease is tracked as Outfall 009.

Substantial Compliance Determination

After a review of all discharge monitoring reports, land application reports, compliance schedule reports, and a site visit on **December 1, 2021**, this facility has been found to be in substantial compliance with their current permit.

Fact Sheet Organization

This fact sheet highlights changes in permit conditions that the Department proposes to make when reissuing the Johnsonville WPDES permit. This fact sheet compares conditions in the previous permit to those in the reissued permit, and contains all content required under s. NR 201, Wis. Adm. Code, as applicable. The permit remains in effect until the permit is either revoked and reissued, modified, or reissued. The tables that follow were taken from the permit and are numbered in this fact sheet as they are numbered in the permit. Shaded text and cells within tables indicate permit conditions, monitoring requirements, or limits that are new or different from those found in the previous permit. Minor text changes that are not substantive to monitoring and demonstrating compliance with permit conditions are not shaded. For complete explanations of derived effluent limitations including water quality-based effluent limitations and technology-based limitations, please refer to the following attached technical memoranda:

1. Water Quality-Based Effluent Limits Technical Memorandum dated December 13, 2021 and updated December 22, 2021
2. Technology-Based Effluent Limits Technical Memorandum dated November 9, 2021

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)
702	0.20 MGD average annual flow; reported daily flow data from April 2017 through September 2021	Influent to WWTP 1 (Countryside)
703	0.40 MGD average annual flow; reported daily flow data from April 2017 through September 2021	Influent to WWTP 2 (Meadowside)
002	0.51 MGD maximum average annual flow (0.47 MGD actual average flow); reported daily flow data from April 2017 through September 2021	COMBINED WWTP EFFLUENT: Discharge of treated noncontact cooling water, cooling tower and boiler blowdown, and sanitary wastewaters and sausage manufacturing process wastewaters from WWTP 1 (Countryside) and WWTP 2 (Meadowside) treatment plants. Treated wastewaters from WWTP 1 and WWTP 2 are combined prior to UV disinfection. Representative samples shall be collected prior to discharging to the Sheboygan River via Outfall 002.
003	1600 gpd maximum average annual flow (780 gpd actual average flow); reported monthly estimated flow data from April 2017 through September 2021	COMBINED NCCW AND STORM WATER: Discharge of noncontact cooling water from the Riverside Production Facility combined with rooftop runoff. Representative samples shall be collected prior to discharging to the Sheboygan River via Outfall 003.
005	69 us dry tons per year land applied ¹ and 1700 us dry tons per year hauled by another permitted facility for final disposal ² ; ¹ as	Combined thickened sludge from WWTP 1 (Countryside) and WWTP 2 (Meadowside) and land applied or hauled to another permitted facility for further treatment and/or final disposal. Representative samples shall be collected of thoroughly mixed

Sample Point Designation		
Sample Point Number	Discharge Flow, Units, and Averaging Period	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)
	reported on permit application, ² average of gallons reported for years 2017 to 2020 multiplied by average percent solids per year converted to us dry tons.	sludge. Test results shall be reported on Form 3400-49 'Waste Characteristics Report'. The permittee is required to submit form 3400-52 'Other Methods of Disposal or Distribution Report' by January 31 following each year.
006	680 us dry tons per year hauled by another permitted facility for final disposal; average of gallons reported for years 2017 to 2020 multiplied by percent solids result for 2020 of 58% converted to us dry tons.	Process grease collected from traps at Meadowside 1 and 3; and Riverside hauled to another permitted facility for further treatment and/or final disposal. The permittee is required to submit form 3400-52 'Other Methods of Disposal or Distribution Report' by January 31 following each year.
007	77,500 gallons averaged between years 2017 and 2018; reported on 3400-52 form	Meadowside WWTP influent hauled to another permitted facility for treatment and/or final disposal. The permittee is required to submit form 3400-52 'Other Methods of Disposal or Distribution Report' by January 31 following each year.
008	1.72 MG average per year; reported gallons from years 2017 to 2020	Water softener regeneration brine water associated with well water treatment hauled to another permitted facility for further treatment and/or final disposal. The permittee is required to submit form 3400-52 'Other Methods of Disposal or Distribution Report' by January 31 following each year.
009	26,000 gallons per year on average; reported for years 2019 and 2020	Process grease intercepted at WWTP 1 (Countryside) in-plant grease trap hauled to another permitted facility for further treatment and/or final disposal. Septage waste passes through grease trap. The permittee is required to submit form 3400-52 'Other Methods of Disposal or Distribution Report' by January 31 following each year.
010	16,000 gallons per day estimated across all locations when active (system tested approximately quarterly); as reported in permit application	FIRE SUPPRESSION SYSTEM: Intermittent, non-potable low-volume discharge from fire suppression system testing and maintenance hydrant flushing occurring at approximately twelve locations located across facility grounds. Remaining flow after evaporation discharges to storm sewer.

1 Influent - Proposed Monitoring

Sample Point Number: 702- WWTP 1 Influent and 703- WWTP 2 Influent

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	

Changes from Previous Permit:

Influent monitoring for Phosphorus, Total and Chloride was removed from the permit. The condition to maintain a daily log of influent sampling was also removed. Industrial dischargers are not required by rule to monitor influent loading. The facility may elect to continue monitoring for these parameters for process control. Influent flow monitoring remains.

The condition to further characterize the influent through regular monitoring for BOD5 (or COD), TSS, TKN, and pH and maintain a daily log of results was also removed from the permit.

Explanation of Limits and Monitoring Requirements

The original purpose for including influent monitoring for phosphorus and chloride was to help the facility optimize for phosphorus removal and for identifying higher source loading of chlorides from the incoming process and sanitary wastewaters. WWTP 2 (Meadowside) influent chloride concentrations have increased over time while WWTP 1 (Countryside) concentrations have decreased. The result is an increasing trend in chloride concentrations from the combined WWTP effluent (Outfall 002) that matches closely with the increase seen with WWTP 2 influent. However, the increase has not approached the effluent limit. Both WWTP 1 and WWTP 2 influents exhibit a decreasing trend in phosphorus concentrations. However, WWTP 2 influent concentrations are a couple of orders of magnitude higher than WWTP 1 and does not serve for meaningful comparison between the two. The overall result is a decreasing trend in phosphorus concentrations from the combined WWTP effluent (Outfall 002) remaining below the current limit of 1.0 mg/L expressed as a monthly average. The treatment process was optimized for phosphorus removal as required under the previous permit with the current plant capabilities and configuration, including chemical addition.

The condition to further characterize influent was removed from the permit as this was originally included as means to inform the design of future treatment plant expansions. These expansions were completed in 2017, and therefore additional characterization of influent loadings is no longer necessary.

2 Surface Water - Proposed Monitoring and Limitations

Sample Point Number: 002- COMBINED DISCHARGE

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		MGD	Daily	Continuous	
BOD5, Total		mg/L	3/Week	24-Hr Flow Prop Comp	
BOD5, Total	Daily Max	464 lbs/day	3/Week	Calculated	
BOD5, Total	Weekly Avg	262 lbs/day	3/Week	Calculated	Limit effective March through May each year.
BOD5, Total	Weekly Avg	88 lbs/day	3/Week	Calculated	Limit effective June through November each year.
BOD5, Total	Weekly Avg	219 lbs/day	3/Week	Calculated	Limit effective December through February each year.
BOD5, Total	Monthly Avg	232 lbs/day	3/Week	Calculated	Limit effective March through May each year.

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
BOD5, Total	Monthly Avg	88 lbs/day	3/Week	Calculated	Limit effective June through November each year.
BOD5, Total	Monthly Avg	219 lbs/day	3/Week	Calculated	Limit effective December through February each year.
Suspended Solids, Total		mg/L	2/Week	24-Hr Flow Prop Comp	
Suspended Solids, Total	Daily Max	564 lbs/day	2/Week	Calculated	
Suspended Solids, Total	Monthly Avg	282 lbs/day	2/Week	Calculated	
Phosphorus, Total	Monthly Avg	1.0 mg/L	Weekly	24-Hr Flow Prop Comp	This is an interim MDV limit effective through September 30, 2023. See the MDV/Phosphorus sections and phosphorus schedules.
Phosphorus, Total	Monthly Avg	0.8 mg/L	Weekly	24-Hr Flow Prop Comp	This is an interim MDV limit effective on October 1, 2023. See the MDV/Phosphorus subsections and phosphorus schedules.
Phosphorus, Total		lbs/month	Weekly	Calculated	Report the total monthly phosphorus discharged in lbs/month on the last day of the month on the DMR. See Standard Requirements for 'Appropriate Formulas' to calculate the Total Monthly Discharge in lbs/month.
Phosphorus, Total		lbs/yr	Weekly	Calculated	Report the sum of the total monthly discharges (for the months that the MDV is in effect) for the calendar year on the Annual report form.
Oil & Grease (Hexane)		mg/L	Monthly	Grab	
Oil & Grease (Hexane)	Daily Max	166 lbs/day	Monthly	Calculated	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Oil & Grease (Hexane)	Monthly Avg	83 lbs/day	Monthly	Calculated	
pH Field	Daily Max	9.0 su	5/Week	Grab	
pH Field	Daily Min	6.0 su	5/Week	Grab	
Chlorine, Total Residual		ug/L	Monthly	Grab	Monitoring only October 1, 2025 through September 30, 2026.
Temperature Maximum		deg F	Monthly	Grab	Monitoring only October 1, 2025 through September 30, 2026.
Fecal Coliform	Daily Max	400 #/100 ml	Monthly	Grab	Best Practicable Technology (BPT) limit effective year-round.
Fecal Coliform	Geometric Mean - Monthly	400 #/100 ml	Weekly	Grab	Limit effective May through September annually until the final E. coli limit goes into effect per the 'Effluent Limitations for E. coli' Schedule.
E. coli		#/100 ml	Weekly	Grab	Monitoring only May through September annually until the final E. coli limit goes into effect per the 'Effluent Limitations for E. coli' Schedule.
E. coli	Geometric Mean - Monthly	126 #/100 ml	Weekly	Grab	Limit effective May through September annually per the 'Effluent Limitations for E. coli' Schedule.
E. coli	% Exceedance	10 Percent	Monthly	Calculated	Limit effective May through September annually per the 'Effluent Limitations for E. coli' Schedule. See the E. coli Percent Limit section below. Enter the result in the DMR on the last day of the month.

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Ammonia (NH ₃ -N) Total	Daily Max	8.0 mg/L	Weekly	24-Hr Flow Prop Comp	
Nitrogen, Ammonia (NH ₃ -N) Total	Monthly Avg	4.0 mg/L	Weekly	24-Hr Flow Prop Comp	
Nitrogen, Total	Daily Max	194 mg/L	Quarterly	24-Hr Flow Prop Comp	
Nitrogen, Total	Monthly Avg	134 mg/L	Quarterly	24-Hr Flow Prop Comp	
Chloride	Daily Max	1,500 mg/L	4/Month	24-Hr Flow Prop Comp	Limit effective March through May each year. Monitoring is year-round. Sampling shall be done on four consecutive days each month. See chloride section below.
Chloride	Daily Max	1,300 mg/L	4/Month	24-Hr Flow Prop Comp	Limit effective June through November each year. Monitoring is year-round. Sampling shall be done on four consecutive days each month. See chloride section below.
Chloride	Daily Max	1,100 mg/L	4/Month	24-Hr Flow Prop Comp	Limit effective December through February each year. Monitoring is year-round. Sampling shall be done on four consecutive days each month. See chloride section below.
Chloride	Weekly Avg	1,500 mg/L	4/Month	24-Hr Flow Prop Comp	Limit effective March through May each year. Monitoring is year-round. Sampling shall be done on four consecutive days each month. See chloride section below.
Chloride	Weekly Avg	860 mg/L	4/Month	24-Hr Flow Prop Comp	Limit effective June through November each year. Monitoring is year-round. Sampling shall be done on four consecutive days each month. See

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
					chloride section below.
Chloride	Weekly Avg	990 mg/L	4/Month	24-Hr Flow Prop Comp	Limit effective December through February each year. Monitoring is year-round. Sampling shall be done on four consecutive days each month. See chloride section below.
Chloride	Monthly Avg	1,500 mg/L	4/Month	24-Hr Flow Prop Comp	Limit effective March through May each year. Monitoring is year-round. Sampling shall be done on four consecutive days each month. See chloride section below.
Chloride	Monthly Avg	860 mg/L	4/Month	24-Hr Flow Prop Comp	Limit effective June through November each year. Monitoring is year-round. Sampling shall be done on four consecutive days each month. See chloride section below.
Chloride	Monthly Avg	990 mg/L	4/Month	24-Hr Flow Prop Comp	Limit effective December through February each year. Monitoring is year-round. Sampling shall be done on four consecutive days each month. See chloride section below.
Chloride	Weekly Avg	6,230 lbs/day	4/Month	Calculated	Limit effective March through May each year. Monitoring is year-round. Chloride mass discharge shall be calculated using the daily concentration (mg/L) x daily flow (MGD) x 8.34. See Chloride subsection below.
Chloride	Weekly Avg	3,230 lbs/day	4/Month	Calculated	Limit effective June through November each year. Monitoring is year-round. Chloride mass discharge shall be

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
					calculated using the daily concentration (mg/L) x daily flow (MGD) x 8.34. See Chloride subsection below.
Chloride	Weekly Avg	3,720 lbs/day	4/Month	Calculated	Limit effective December through February each year. Monitoring is year-round. Chloride mass discharge shall be calculated using the daily concentration (mg/L) x daily flow (MGD) x 8.34. See Chloride subsection below.
Acute WET		TUa	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annually in rotating quarters. See 'WET' section-below.
Chronic WET	Monthly Avg	4.0 TUC	See Listed Qtr(s)	24-Hr Flow Prop Comp	Annually in rotating quarters. See 'WET' section below.

Changes from Previous Permit

Monitoring for **Copper**, **Total Recoverable** and **Hardness, Total as CaCO₃** was removed from the permit.

Added requirements in order of presentation in monitoring table for Outfall 002:

BOD₅ Total: Monthly average limits of 88 lbs/day and 219 lbs/day were added for the months of June through November and December through February, respectively.

Phosphorus, Total: The permittee has applied for a multi-discharger variance (MDV) for phosphorus for this permit term and the application has been approved by the Department. An MDV interim limit of 0.8 mg/L has been added that goes into effect per a compliance schedule. The permittee is now required to report the total amount of phosphorus discharged in lbs/month and lbs/year. By March 1 of each year the permittee shall make a payment(s) to participating county(s) of \$58.85 per pound of phosphorus discharged during the previous year in excess of the target value of 0.2 mg/L. The previous permit term's technology-based phosphorus limit of 1.0 mg/L expressed as a monthly average is included in the permit as an interim limit effective through September 30, 2023. This is replaced by a new interim limit of 0.8 mg/L, and is effective through the end of the permit term.

Chlorine, Total Residual: Monthly grab sampling for chlorine from October 1, 2025 through September 30, 2026 was added to the permit.

Temperature Maximum: Monthly grab measurement for temperature from October 1, 2025 through September 30, 2026 was added to the permit.

Fecal Coliform (Daily Max): A year-round daily max limit of 400 CFU/100ml was added to the permit to conform with Best Practicable Technology (BPT) categorical effluent limitations.

Fecal Coliform (Geometric Mean-Monthly): The monthly geometric mean of 400 CFU/100ml will be replaced by E.Coli as the indicator organism per the schedule in the permit.

E.Coli (monitoring-only period): Weekly monitoring-only for E.Coli as the indicator organism for pathogens has been added to the permit during the period preceding the effective date of the E.Coli limit.

E.Coli (geometric mean-monthly; % exceedance): Weekly monitoring and a limit of 126#/100 mL has been added to the permit. Monthly calculation and a limit of 10 percent of samples exceeding 126#/100 mL (% exceedance) has been added to the permit.

Annual **Acute Whole Effluent Toxicity (WET)** and **Chronic WET** testing, and a 4.0 TUc Chronic WET limit remains the same. The Instream Waste Concentration (IWC) of 25% also remains unchanged. See section below for explanation of antibacksliding and antidegradation requirements.

Explanation of Limits and Monitoring Requirements

Categorical Treatment Based Limitations (ch. NR 258, Wis. Adm. Code and 40 CFR Part 132 Subpart G)

BOD₅, TSS, pH, Total Nitrogen, and Ammonia Nitrogen:

The process wastewater effluent limits for BOD₅, TSS, Oil & Grease, pH, Total Nitrogen, and Ammonia Nitrogen are retained from the previous permit. Those limits are based on effluent limit guidelines in 40 CFR Part 432 Subpart G treatment standards for the category of “Sausage and Luncheon Meat Processor”. In accordance with ch. NR 220, Wis. Adm. Code., the Department has implemented effluent guidelines from the newest federal regulations as these standards were not promulgated into Department standards of ch.NR 258, Wis. Adm. Code.

Johnsonville Sausage has submitted current annual and daily production rates for the existing production lines. Based on this data, Johnsonville Sausage had an average daily production rate of approximately 945,205 pounds per day (as compared to 764,000 pounds per day at previous permit reissuance) and an annual production rate of 345 million pounds per year. The previous permit term utilized the projected production rate of 830,000 pounds per day as this value fell within the range of normal variability in production (up to 20% according to EPA), and accounted for the installation of new production lines. The additional loadings from these new lines have resulted in an increase the calculated limits above that in the previous permit. However, the limits cannot be increased unless the permittee requests relaxed limits and they meet the antidegradation provisions of ch. NR 207, Wis. Adm. Code and the anti-backsliding provisions of CWA ss. 303(d)(4) and 402(o) and 40 CFR §122.44(I). The permittee has not requested relaxed limits and they have demonstrated that they can comply with the final categorical limits even with the increase in production rates.

Fecal Coliform:

Johnsonville Sausage accepts domestic wastewater from their campus and the Village of Johnsonville. Therefore, a monthly geometric mean of 400 CFU/ 100 ml applies in accordance with s. NR 102.04(6), Wis. Adm. Code. This water quality-based limit requires seasonal disinfection from May 1st through September 30th to protect recreational uses of the Sheboygan River. Johnsonville currently implements UV disinfection to meet this limit during the recreational season. Additionally, 40 CFR Part 432 Subpart G specifies a year-round daily maximum categorical effluent limit of 400 CFU /100 ml. However, the previous permit term did not include the year-round categorical limit on the basis that no harvesting of animals occurs at the site. The Department revisited this determination, and in doing so, reviewed fecal coliform categorical limits for all sectors under 40 CFR Part 432 (Subparts A through L). All subparts include the daily maximum and maximum monthly average best practicable control technology (BPT) limits for fecal coliform independent of whether harvesting occurs on site. Thus, fecal coliform BPT limits are extended beyond the recreation season to year-round in the permit.

Water Quality-Based Effluent Limitations

BOD₅ and TSS:

A reevaluation of WQBELs for BOD₅ was performed following the “26-pound Rule” model developed in the 1970's by the Wisconsin Committee on Water Pollution on the Fox, Wisconsin, Oconto, and Flambeau Rivers. Most of the

recalculated weekly average BOD₅ mass limits were less restrictive than those in the previous permit. Johnsonville Sausage has demonstrated compliance with the current weekly average BOD₅ technology-based limits; therefore, the current weekly average BOD₅ mass limits (those that are more restrictive) are retained in the permit. As there is no water quality standard for TSS, limits in permits are primarily given to maintain or improve water clarity. Since the more restrictive technology-based limits for BOD₅ are included in the permit, the corresponding calculated TSS limits are also included. If Johnsonville wishes to request increased weekly average BOD₅ mass limitations then Wisconsin's water quality antidegradation provisions of ch. NR 207, Wis. Adm. Code must be met before any permit limits may be increased.

E.Coli:

Revisions to bacteria surface water quality criteria to protect recreational uses and accompanying E. coli WPDES permit implementation procedures became effective May 1, 2020. The new rule requires that WPDES permits for facilities with required disinfection include monitoring for E. coli while facilities are disinfecting during the recreation period and establish effluent limitations for E. coli established in s. NR 210.06 (2), Wis. Adm. Code. The administrative code rule changes included the following actions: revised the bacteria water quality criteria from fecal coliform to E. coli to protect recreation in ch. NR 102, Wis. Adm. Code; removed fecal coliform criteria for certain individual waters from ch. NR 104, Wis. Adm. Code; revised permit requirements for publicly and privately owned sewage treatment works in ch. NR 210, Wis. Adm. Code; and updated approved analytical methods for bacteria in ch. NR 219, Wis. Adm. Code. As Johnsonville accepts and treats domestic wastewater from their campus and the Village of Johnsonville, these requirements apply. Monitoring at the same frequency as fecal coliform is included in the permit. At the time of permit development, there was no effluent E.Coli data to determine if the facility could meet the limit. A compliance schedule is included in the permit to allow for data collection and during which an interim limit is in effect to prevent backsliding from treatment levels currently achievable.

Ammonia Nitrogen:

The Department reevaluated WQBELs for ammonia nitrogen in accordance with chs. NR. 105 and 106, Wis. Adm. Code. The Department has determined the categorical limits for ammonia nitrogen are more restrictive than the WQBELs. Therefore, the daily maximum and monthly average ammonia nitrogen concentration categorical limits are retained in the permit.

Phosphorus:

Phosphorus rules became effective December 1, 2010 per NR 217, Wis. Adm. Code, that required the permittee to comply with water quality-based effluent limits (WQBELs) for total phosphorous. The final phosphorus WQBELs are 0.225 mg/L as a monthly average and 0.075 mg/L (0.25 lbs/day) as a six-month average and were to become effective as scheduled unless a variance was granted. For this permit term, the permittee has applied for the Multi-Discharger Variance (MDV) for phosphorus as provided for in s. 283.16, Wis. Stats., and approved by USEPA on February 6, 2017 until February 5, 2027. The permittee qualifies for the MDV because it is an existing source and a major facility upgrade is needed to comply with the applicable phosphorus WQBELs, thereby creating a financial burden.

Conditions of the MDV require the permittee to optimize phosphorus removal throughout the proposed permit term, comply with interim limits and make annual payments to participating county(s) by March 1 of each year based on the pounds of phosphorus discharged during the previous year in excess of the specified target value. The "price per pound" value is \$50.00 adjusted for CPI annually during the first quarter as defined by s. 283.16(8)(a)2, Wis. Stats and takes effect for reissued permits with effective dates starting April 1. This may differ from the "price per pound" that is public noticed; however, the "price per pound" is set upon reissuance and is applicable for the entire permit term. The participating county(s) uses these payments to implement non-point source (agricultural and urban) phosphorus control strategies at the watershed level.

Chloride:

Since Johnsonville has demonstrated compliance with the water quality-based effluent limitations set forth in the previous permit, the existing limits are retained consistent with the water quality antidegradation procedures in ch. NR 207.04(2),

Wis. Adm. Code. Johnsonville began hauling the water softener regeneration (“backwash”) brine water to an industrial waste pretreatment authority in mid-November 2015 which discharges to the Milwaukee Metropolitan Sewerage District collection system. This diversion of high strength chloride continues to substantially reduce the effluent chloride concentration in the effluent at Outfall 002.

The Department has recalculated chloride WQBELs using the data collected during the previous permit term. The calculated limits are less restrictive than the limits currently in effect. Wisconsin’s water quality antidegradation provisions of ch. NR 207, Wis. Adm. Code must be met before chloride permit limits may be increased in the future. This includes a demonstration of need by the facility for the higher limits, which at this time cannot be demonstrated because the highest reported concentration was far below any of the limits at 801 mg/L (closest is Dec-Feb monthly average limit of 990 mg/L).

Whole Effluent Toxicity (WET) Testing:

WET testing is used to measure, predict, and control the discharge of toxic materials that may be harmful to aquatic life. In WET tests, organisms are exposed to a series of effluent concentrations for a given time and effects are recorded. The Department has determined that no acute WET limit is needed at this time, but acute WET testing should be continued in the permit. For determining chronic WET limits and testing frequency, the Department calculated reasonable potential based on an updated Instream Waste Concentration of 21% (a decrease from 25% in the previous permit term). This was due to the decrease in maximum annual average flow over the permit term. For both acute and chronic WET limits, the result of the Reasonable Potential Equation must be greater than 1.0. For acute, the result was 0.0. For chronic, the result was 0.96. While reasonable potential was not triggered for either acute or chronic WET limits, the annual testing frequency was retained from the previous permit term along with the IWC% and limit for chronic WET testing. As with the availability of calculated increases of other final effluent limits, inclusion of an increased WET limit (i.e., the relaxing of an existing limit) must first be requested by the facility along with a determination of need under antidegradation and antibacksliding provisions of ch. NR 207, Wis. Adm. Code.

Monitoring for Parameters Without Limits:

Chlorine, Total Residual:

Johnsonville sampled for residual chlorine with the permit application and reported a result > 60 ug/L which exceeds the calculated water quality-based effluent limit. Johnsonville does not use chlorine for disinfection and the source water does not contain chlorine. However, hypochlorite is added to sanitation processes which is before the wastewater treatment processes. Johnsonville resampled twice using a different method and produced results < 20 ug/L which is below the calculated limit. Monthly grab sampling for chlorine from October 1, 2025 through September 30, 2026 (6 months prior to permit expiration date) was added to the permit and results will be used for evaluation at the next permit reissuance.

Temperature Maximum:

Consistent with the last permit reissuance, the Department determined that WQBELs for maximum temperature continue to not be required at Outfall 002. Monitoring for maximum temperature is retained in the permit to provide effluent data for the next reasonable potential determination with the next permit reissuance. As with chlorine, sampling is to occur from October 1, 2025 through September 30, 2026 (6 months prior to permit expiration).

Sample Point Number: 003- NONCONTACT COOLING WATER

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Flow Rate		gpd	Monthly	Estimated	See 'Flow Rate' section.
Phosphorus, Total		mg/L	Monthly	Grab	Monitoring only October 1,

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
					2024 through September 30, 2026.
Chlorine, Total Residual		ug/L	Monthly	Grab	Monitoring only October 1, 2025 through September 30, 2026.

Changes from Previous Permit

Monitoring for **Temperature Maximum** was removed from the permit.

Added requirements in order of presentation in monitoring table for Outfall 003:

Phosphorus, Total:

Monthly grab sampling for phosphorous from October 1, 2024 through September 30, 2026 was added to the permit.

Chlorine, Total Residual:

Monthly grab sampling for chlorine from October 1, 2025 through September 30, 2026 was added to the permit.

Explanation of Limits and Monitoring Requirements

Temperature, Maximum:

There continues to be no reasonable potential to exceed the public health standard of 120°F, and therefore monitoring was removed from the permit. The highest recorded daily maximum temperature recorded from April 2017 through March 2019 was 66°F.

Phosphorus, Total:

Total Maximum Daily Loads (TMDLs) for phosphorous and total suspended solids are being developed for waterways tributary to the Northeast Lakeshore of Lake Michigan (the Northeast Lakeshore TMDL Study Area). Once approved, wasteload allocations (WLAs) for total phosphorus will be included in the next permit reissuance consistent with how TMDLs are implemented in individual wastewater permits statewide. The results will be used for evaluation at the next permit reissuance when determining whether a schedule will be needed to meet the phosphorus WLAs.

Chlorine, Total Residual:

Johnsonville sampled for residual chlorine with the permit application and reported a result of 40 ug/L which exceeds the calculated water quality-based effluent limit. Johnsonville resampled twice using a different method and produced results < 20 ug/L which is below the calculated limit. Monthly grab sampling for chlorine from October 1, 2025 through September 30, 2026 (6 months prior to permit expiration date) was added to the permit and results will be used for evaluation at the next permit reissuance.

Sample Point Number: 010- FIRE SUPPRESSION WATER

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Volume		gal/qtr	Quarterly	Total Quarterly	

Changes from Previous Permit

No changes were made to monitoring discharges from Outfall 010. This is an aggregate outfall representing approximately twelve locations where the fire suppression system test water is discharged. The average discharge volume is 16,000 gallons per quarter, with test discharges occurring over a period of a few minutes from each location tested. The source water is well water that is not chlorinated.

Explanation of Limits and Monitoring Requirements

Narrative limits in the form of installing erosion and sediment control best management practices to reduce erosive flows causing sediment detachment and transport and maintaining a log of visual observations made during test system discharges are continued in the permit. The visual log requires the permittee to document any obvious indicators of pollution consistent with s. NR 102.04(1), Wis. Adm. Code narrative water quality criteria.

3 Land Application - Sludge/By-Product Solids

Sample Point Number: 005- WWTPs Combined Sludge

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Quarterly	Grab	
BOD5, Total		Percent	Quarterly	Grab	
pH Field		su	Quarterly	Grab	
Chloride		Percent	Quarterly	Grab	
Nitrogen, Total Kjeldahl		Percent	Quarterly	Grab	
Nitrogen, Ammonium (NH4-N) Total		Percent	Quarterly	Grab	
Phosphorus, Total		Percent	Quarterly	Grab	
Phosphorus, Water Extractable		% of Tot P	Quarterly	Grab	
Potassium, Total		Percent	Quarterly	Grab	

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Recoverable					
Arsenic Dry Wt		mg/kg	Annual	Grab Comp	
Cadmium Dry Wt		mg/kg	Annual	Grab Comp	
Copper Dry Wt		mg/kg	Annual	Grab Comp	
Lead Dry Wt		mg/kg	Annual	Grab Comp	
Mercury Dry Wt		mg/kg	Annual	Grab Comp	
Molybdenum Dry Wt		mg/kg	Annual	Grab Comp	
Nickel Dry Wt		mg/kg	Annual	Grab Comp	
Selenium Dry Wt		mg/kg	Annual	Grab Comp	
Zinc Dry Wt		mg/kg	Annual	Grab Comp	

Changes from Previous Permit:

Sample frequency for **Solids, Total, Nitrogen, Total Kjeldahl, Chloride, Phosphorus, Total, and BOD₅** was reduced to quarterly from monthly.

Sample frequency for **Nitrogen, Ammonia (NH₃-N) Total, pH, and Potassium, Total Recoverable** was increased to quarterly from annual.

Explanation of Limits and Monitoring Requirements

Sampling Frequency:

Johnsonville produces a sludge that is a product of both industrial and domestic waste treatment processes. Discharge limitations and sampling requirements under Ch. NR 204, Wis. Adm. Code, and Ch. NR 214, Wis. Adm. Code were reviewed, and in the case of overlapping requirements, the more restrictive criteria was included in the permit. Johnsonville infrequently directly land applies the combined industrial and domestic sludge from Outfall 005. This activity last occurred in 2017, and represented a relatively small volume compared to the total amount generated. Therefore, there is no need to characterize these parameters in the sludge more frequently than monthly, and the determination of such frequency can be made by the department on a case-by-case basis under s. NR 204.06(2)(c), Wis. Adm. Code for the domestic component.

Metals:

Ch. NR 204, Wis. Adm. Code metal requirements are applicable to sludges where the domestic wastewaters originate from somewhere other than an industrial facility. Ch. NR 204, Wis. Adm. Code, specifies ceiling concentration limits, high quality concentration limits, and maximum cumulative loading rates for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium and zinc. Sludges containing these metals must be monitored for pollutant concentration and cumulative loading to land application sites/fields. When comparing the metals concentration of Johnsonville Sausage's sludge from data submitted in their permit application to "high quality" concentrations in ch. NR 204, Wis. Adm. Code, these metals concentrations are well below the high-quality concentration. Therefore, the Department recommends monitoring for arsenic, cadmium, copper, lead, mercury, molybdenum, nickel, selenium and zinc with no limits in the permit. Monitoring is only required once in the calendar years of 2022 and 2024.

Nitrogen:

Ch. NR 214, Wis. Adm. Code states that the maximum application rate of nitrogen be limited to the nitrogen needs of the crop or cover vegetation minus any other nitrogen, including fertilizer or manure, added to the landspreading site. This standard would then require monitoring for those forms of nitrogen that are readily available for plant uptake (i.e. organic nitrogen, ammonia-nitrogen and nitrate-nitrogen). Johnsonville Sausage has had detectable levels of Total Kjeldahl Nitrogen (TKN) and ammonia-nitrogen in their sludge. Since TKN is the sum of ammonia-nitrogen and organic nitrogen, the Department recommends continued monitoring for percent TKN and ammonia-nitrogen from the previous permit to track nitrogen loading. The maximum application rate of nitrogen shall not exceed 165 pounds of TKN per acre per year (this limit is based on the nitrogen uptake of the most common cover crop - field corn) minus any other nitrogen, including fertilizer or manure, added to the application site unless the Department specifies or accepts an alternate nitrogen loading amount for other cover crop nitrogen needs.

Chloride:

Johnsonville Sausage as a sausage processor contains chloride in their process wastewater. This chloride has the potential to be held and removed in Johnsonville Sausage sludge. Therefore, monitoring requirements for chloride are retained in the permit in accordance with s. NR 214.18(5)(b), Wis. Adm. Code. The land application of chloride is limited to 340 pounds per acre per two-year period.

BOD₅:

The Department recommends monitoring for total BOD₅ in the permit. Monitoring for total BOD₅ will allow Johnsonville Sausage to track organic loading and make certain that this loading is not exceeded for any land application sites in accordance with s. NR 214.18(4)(a), Wis. Adm. Code.

Phosphorus, pH, and Potassium:

The Department recommends continued monitoring for total phosphorus, pH, and total recoverable potassium. Monitoring for phosphorus and potassium will allow Johnsonville Sausage to track the nutrient needs of the cover crops at land application sites as specified in s. NR 214.18(4)(d), Wis. Adm. Code. Monitoring for pH is required in accordance with s. NR 214.18(4)(e), Wis. Adm. Code to prevent the leaching of metals out of the soil mixture. The pH of sludge and soil mixture shall be 6.5 or higher at the time that the sludge is spread. The permit also requires annual monitoring for water extractable phosphorus (WEP). Monitoring for WEP will allow Johnsonville Sausage to evaluate the sludges potential to release dissolved phosphorus to runoff water.

Pathogen Control and Vector Attraction Reduction:

Ch. NR 204, Wis. Adm. Code is applicable to sludges where the domestic wastewaters originate from somewhere other than an industrial facility. Ch. NR 204, Wis. Adm. Code, specifies pathogen control and vector attraction reduction requirements for these sludges. The permittee shall not land apply sludge until they either sample for fecal coliform or follow one of the treatment process options, as provided in List 1 in the permit, prior to land application. The fecal coliform sample shall be reported as the geometric mean of 7 discrete samples on a dry weight basis. Monitoring frequency shall be once annually and the sample shall be collected on the day of application to get a representative of the sludge applied to the field. For vector attraction reduction, the permittee shall not land apply sludge unless one of the 11 vector attraction reduction options, as provided in List 2 in the permit, is satisfied prior to or at the time of land application.

Site Approval:

The land application of biosolids from the Johnsonville Sausage can only be applied to Department approved sites in accordance with ss. NR 214.17(2) and 214.18(2), Wis. Adm. Code. This allows the Department to properly evaluate each land application site for necessary soil and site criteria.

Manure Pits:

The solids generated at the Johnsonville Sausage facility are considered sludge under s. NR 214.18, Wis. Adm. Code. Therefore, industrial sludges cannot be discharged to manure storage units, unless the entire storage unit is approved

under chs. NR 213 and 214 Wis. Adm. Code. There is no 10% exemption for discharge of industrial sludge to manure storage units under s. NR 214.18 Wis. Adm. Code.

Sample Point Number: 006- Process Grease Interceptors

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Solids, Total		Percent	Annual	Grab Comp	
Phosphorus, Total		lb/1000gal	Annual	Grab Comp	
Nitrogen, Total		lb/1000gal	Annual	Grab Comp	

Changes from Previous Permit:

The facility has met the previous permit term's sampling requirements and there have been no rule changes for consideration applicable to the activity tracked through this outfall. Therefore, the Department has determined that there is no need to change the requirements for this outfall in this permit term. **Explanations of limits and monitoring requirements are carried over from the WPDES Permit No. WI-0001759-09-01 Permit Fact Sheet.**

Explanation of Limits and Monitoring Requirements

Manure Storage Unit Approval: Process (industrial) grease generated by the industrial food production process typically enters a grease interceptor installed in or connected to process pipes, not sanitary plumbing pipes. Process piping is not regulated by the plumbing code; therefore, this waste is exempt from ch. NR 113, Wis. Adm. Code requirement. Therefore, process grease is regulated as industrial sludge under s. NR 214.18, Wis. Adm. Code. There is no 10% exemption for discharge of industrial sludge to manure storage units under s. NR 214.18 Wis. Adm. Code. However, the requirements of ch. NR 214, Wis. Adm. Code are typically less stringent than the requirements of ch. NR 243, Wis. Adm. Code. Section NR 243.18, Wis. Adm. Code, allows mixed waste (manure + agricultural process wastewater + industrial sludge) to be stored and land applied in accordance with ch. NR 243, Wis. Adm. Code, at a WPDES permitted farm.

A WPDES permitted process grease generator with a landspreading outfall may dispose of its sludge at any WPDES permitted farm provided the department approves the disposal of the waste, the WPDES permitted farm allows the acceptance of the waste, and the total mixing of industrial sludge is less than 30% total volume and all other applicable permit requirements are met. However, the department lacks information from Johnsonville with regard to the manure storage unit(s) and approval of the disposal. Therefore, the department has included a compliance schedule in the permit to allow Johnsonville to evaluate each manure storage unit that receives waste and get them reapproved for disposal of the waste.

Total Solids, Total Phosphorus, and Total Nitrogen: Johnsonville hauls its process grease to a WPDES permitted farm to be discharged to either manure pit(s) or manure digester. The WPDES permit for the farm requires a nutrient management plan (NMP) to track waste sources entering the manure pit(s) or digestors as well as tracking nutrients when the wastes are land applied on approved fields. This NMP also requires the tracking of other sources of nutrients. Therefore, for the farmer to have an accurate estimate of total nutrients entering the manure pit(s) and manure digester and being land applied, the department has added annual sampling for the total solids, total phosphorus, and total nitrogen in the permit. The permittee shall supply these results to the farmer annually to ensure and verify that the permitted farm is land applying the mixed waste in accordance with the NMP and does not cause detrimental impacts to waters of the state or public health and has beneficial properties as a soil conditioner or fertilizer. Sampling is only required when the waste is hauled and discharged to permitted manure pit(s) or manure digester(s) during any year.

Sample Type: In accordance with s. NR 218.11, Wis. Adm. Code, the method of sampling shall be that specified in the WPDES permit. Therefore, the permittee may take a grab sample of the process grease from each grease interceptor of equal volume and combine them into one composite sample to be analyzed. Alternatively, the permittee may take an individual grab sample of each grease interceptor of equal volume and have each sample analyzed and the results averaged together. This sample type will ensure a representative sample of the process grease is being collected prior to disposal in the manure pit(s) or digester.

Reporting of Disposal: The permittee shall continue to track and report the total annual volume of process grease hauled to manure pit(s), manure digester, another facility, land filled, or incinerated on Form 3400-052 (Other Methods of Disposal or Distribution Report).

Landspreading and Discharge to Another Manure Pit(s) Approval: The permittee shall receive approval from the department to landspread or store any of the grease wastes to department approved sites or manure pit(s) at another farm (non-permitted or permitted). The permittee must demonstrate that the industrial waste has no detrimental effects on the soils, vegetation or groundwater of a landspreading system and has beneficial properties as a soil conditioner or fertilizer. in accordance with s. NR 214.02(1), Wis. Adm. Code. The permittee shall also request a permit modification to include land spreading limits and monitoring requirements based on ch. NR 214, Wis. Adm. Code.

Sample Point Number: 007- Meadowside Influent Disposal; 008- Regeneration Brine Water, and 009- WWTP 1 Grease Trap

Changes from Previous Permit:

The facility has met the previous permit term's sampling requirements and there have been no rule changes for consideration applicable to the activity tracked through this outfall. Therefore, the Department has determined that there is no need to change the requirements for this outfall in this permit term. **Explanations of limits and monitoring requirements are carried over from the WPDES Permit No. WI-0001759-09-01 Permit Fact Sheet.**

Explanation of Limits and Monitoring Requirements

Removal of Monitoring and Sampling Requirements: Section 214.17(5), Wis. Adm. Code, only requires sampling and monitoring in a WPDES permit if the liquid waste will be discharged to a landspreading system. Since none of the wastes associated with Outfalls 007, 008, or 009 will be landspread, the department has removed the sampling and monitoring requirements from the permit.

Reporting of Disposal: The Outfalls were added to the permit as reminder to track and report the total annual volume of Outfalls 007, 008, and 009 hauled to another facility, land filled, or incinerated on Form 3400-052 (Other Methods of Disposal or Distribution Report).

Landspreading or Discharge to Manure Pit(s) Approval: The permittee shall receive approval from the department to landspread or store any of the wastes associated with Outfalls 007, 008, or 009 to department approved sites or manure pit(s). The permittee must demonstrate that the industrial waste has no detrimental effects on the soils, vegetation or groundwater of a landspreading system in accordance with s. NR 214.02(1), Wis. Adm. Code. The permittee shall also request a permit modification to include land spreading limits and monitoring requirements based on ch. NR 214, Wis. Adm. Code.

4 Compliance Schedules

4.1 Phosphorus Schedule - Continued Optimization

The permittee is required to optimize performance to control phosphorus discharges per the following schedule.

Required Action	Due Date
-----------------	----------

Optimization: The permittee shall continue to implement the optimization plan as previously approved to optimize performance to control phosphorus discharges. Submit a progress report on optimizing removal of phosphorus by the Due Date.	03/31/2023
Progress Report #2: Submit a progress report on optimizing removal of phosphorus.	03/31/2024
Progress Report #3: Submit a progress report on optimizing removal of phosphorus.	03/31/2025
Progress Report #4: Submit a progress report on optimizing removal of phosphorus.	03/31/2026
Progress Report #5: Submit a progress report on optimizing removal of phosphorus.	03/31/2027

4.2 Phosphorus Payment per Pound to County

The permittee is required to make annual payments for phosphorus reductions to the participating county or counties in accordance with s. 283.16(8), Wis. Stats, and the following schedule. The price per pound will be set at the time of permit reissuance and will apply for the duration of the permit.

Required Action	Due Date
Annual Verification of Phosphorus Payment to County: The permittee shall make a total payment to the participating county or counties approved by the Department by March 1 of each calendar year. The amount due is equal to the following: [lbs of phosphorus discharged minus the permittee's target value times \$58.85] or \$640,000, whichever is less. See the payment calculation steps in the Surface Water section. The permittee shall submit Form 3200-151 to the Department by March 1 of each calendar year indicating total amount remitted to the participating counties to verify that the correct payment was made. The first payment verification form is due by the specified Due Date. Note: The applicable Target Value is 0.2 mg/L as defined by s. 283.16(1)(h), Wis. Stats. The "per pound" value is \$50.00 adjusted for CPI.	03/01/2023
Annual Verification of Payment #2: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2024
Annual Verification of Payment #3: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2025
Annual Verification of Payment #4: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2026
Annual Verification of Payment #5: Submit Form 3200-151 to the Department indicating total amount remitted to the participating counties.	03/01/2027
Continued Coverage: If the permittee intends to seek a renewed variance, an application for the MDV (Multi Discharger Variance) shall be submitted as part of the application for permit reissuance in accordance with s. 283.16(4)(b), Wis. Stats.	
Annual Verification of Payment After Permit Expiration: In the event that this permit is not reissued prior to the expiration date, the permittee shall continue to submit Form 3200-151 to the Department indicating total amount remitted to the participating counties by March 1 each year.	

4.3 Phosphorus Multi-Discharger Variance Interim Limit (0.8 mg/L)

This compliance schedule requires the permittee to achieve compliance with the specified MDV interim effluent limit in accordance with s. 283.16(6), Wis. Stats., by the due date.

Required Action	Due Date
Report on Effluent Discharges: Submit a report on effluent discharges of phosphorus with conclusions regarding compliance.	03/31/2022
Complete Actions: Complete actions identified in the plan and achieve compliance with the specified interim effluent limit.	09/30/2023

4.4 Effluent Limitations for E. coli

The permittee shall comply with surface water limitations for E. coli as specified. No later than 14 days following each compliance date, the permittee shall notify the Department in writing of its compliance or noncompliance. If a submittal is required, a timely submittal fulfills the notification

Required Action	Due Date
Status Update: The permittee shall submit information within the discharge monitoring report (DMR) comment section documenting the steps taken in preparation for properly monitoring and testing for E. coli including, but not limited to, selected test method and location of sampling.	05/21/2022
<p>Operational Evaluation Report: The permittee shall prepare and submit an Operational Evaluation Report to the Department for review and approval. The report shall include an evaluation of collected effluent data and proposed operational improvements that will optimize efficacy of disinfection at the treatment plant during the period prior to complying with final E. coli limitations and, to the extent possible, enable compliance with the final E. coli limitations. The report shall include a plan and schedule for implementation of the operational improvements. These improvements shall occur as soon as possible, but not later than April 30, 2023. The report shall state whether the operational improvements are expected to result in compliance with the final E. coli limitations.</p> <p>The permittee shall implement the operational improvements in accordance with the approved plan and schedule specified in the Operational Evaluation Report and in no case later than April 30, 2023.</p> <p>If the Operational Evaluation Report concludes that the operational improvements are expected to result in compliance with the final E. coli limitations, the permittee shall comply with the final E. coli limitations by April 30, 2023 and the permittee is not required to comply with subsequent milestones identified below in this compliance schedule ('Submit Facility Plan', 'Final Plans and Specifications', 'Treatment Plant Upgrade to Meet Limitations', 'Construction Upgrade Progress Report', 'Complete Construction', 'Achieve Compliance').</p> <p>FACILITY PLAN - If the Operational Evaluation Report concludes that operational improvements alone are not expected to result in compliance with the final E. coli limitations, the permittee shall initiate development of a facility plan for meeting final E. coli limitations and comply with the remaining required actions in this schedule of compliance.</p> <p>If the Department disagrees with the conclusion of the report, and determines that the permittee can achieve final E. coli limitations using the existing treatment system with only operational improvements, the Department may reopen and modify the permit to include an implementation schedule for achieving the final E. coli limitations sooner than April 30, 2026.</p>	11/30/2022

Submit Facility Plan: If the Operational Evaluation Report concluded that the permittee cannot achieve final E. coli limitations with operational improvements alone, the permittee shall submit a Facility Plan per s. NR 110.09, Wis. Adm. Code. The permittee may submit an abbreviated facility plan if the Department determines that the modifications are minor.	04/30/2023
Final Plans and Specifications: The permittee shall submit final construction plans to the Department for approval pursuant to ch. NR 108, Wis. Adm. Code, specifying treatment plant upgrades that must be constructed to achieve compliance with final E. coli limitations and a schedule for completing construction of the upgrades by the complete construction date specified below.	03/31/2024
Treatment Plant Upgrade to Meet Limitations: The permittee shall initiate bidding, procurement, and/or construction of the project. The permittee shall obtain approval of the final construction plans and schedule from the Department pursuant to s. 281.41, Stats., prior to initiating activities defined as construction under ch. NR 108, Wis. Adm. Code. Upon approval of the final construction plans and schedule by the Department pursuant to s. 281.41, Stats., the permittee shall construct the treatment plant upgrades in accordance with the approved plans and specifications.	09/30/2024
Construction Upgrade Progress Report: The permittee shall submit a progress report on construction upgrades.	09/30/2025
Complete Construction: The permittee shall complete construction of wastewater treatment system upgrades.	03/31/2026
Achieve Compliance: The permittee shall achieve compliance with final E. coli limitations.	04/30/2026

Explanation of Compliance Schedules

Phosphorus Schedule - Continued Optimization:

Per s. 283.16(6)(a), Wis. Stats. the Department may include a requirement that the permittee optimize the performance of a point source in controlling phosphorus discharges, which may be necessary to achieve compliance with multi-discharger variance interim limits. This compliance schedule requires the permittee to continue to implement the optimization plan that was approved during the previous permit term.

Phosphorus Payment per Pound to County:

Subsection 283.16(6)(b), Wis. Stats., requires permittees that have received approval for the multi-discharger variance (MDV) to implement a watershed project that is designed to reduce non-point sources of phosphorus within the HUC 8 watershed in which the permittee is located. The permittee has selected the "Payment to Counties" watershed option described in s. 283.16(8), Wis. Stats. Under this option the permittee shall make annual payment(s) to participating county(s) that are calculated based on the amount of phosphorus actually discharged during a calendar year in pounds per year less the amount of phosphorus that would have been discharged had the permittee discharged phosphorus at a target value concentration of 0.2 mg/L. The pounds of phosphorus discharged in excess of the target value is multiplied by a per pound phosphorus charge that will equal \$58.85 per pound. This schedule requires the permittee to submit Form 3200-151 to the Department indicating the total amount remitted to the participating county(s).

Phosphorus Multi-Discharger Variance Interim Limit (0.8 mg/L):

Subsection 283.16(6), Wis. Stats., establishes required interim phosphorus effluent limits that must be met for multi-discharger variance (MDV) eligibility. The schedule above provides the permittee with 18 months to comply with that limit.

Effluent Limitations for E. coli:

A schedule is included in the permit to provide time for the permittee to investigate options for meeting new effluent E. coli water quality-based effluent limits while coming into compliance with the limits as soon as reasonably possible.

Special Reporting Requirements

No special reporting requirements are included in the permit.

Attachments:

1. Water Quality-Based Effluent Limits Technical Memorandum dated December 13, 2021 and updated December 22, 2021
2. Technology-Based Effluent Limits Technical Memorandum dated November 9, 2021

Proposed Expiration Date:

March 31, 2027

Justification Of Any Waivers From Permit Application Requirements

No waivers were requested or granted for this permit.

Prepared By:

Bryan Hartsook Wastewater Field Supervisor

Date: Revised – January 11, 2022

Updated for Fact Check Review – January 26, 2022